



## SEQUENCE LISTING

<110> Sah, Dinah Wen-Yee  
Rossomando, Anthony  
Johansen, Teit E.

<120> NOVEL NEUROTROPHIC FACTORS

<130> 13751-056001

<140> US 10/661,984  
<141> 2003-09-12

<150> US 09/804,615  
<151> 2001-03-12

<150> PCT/EP02/02691  
<151> 2002-03-12

<160> 76

<170> FastSEQ for Windows Version 4.0

<210> 1  
<211> 865  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> (120) ... (719)

<221> 5'UTR  
<222> (1) ... (119)

<221> 3'UTR  
<222> (720) ... (865)

<221> sig\_peptide  
<222> (120) ... (179)

<221> mat\_peptide  
<222> (405) ... (719)

<400> 1  
ctaggagccc atgccccggcc ttagtctcagc ccgaggacag cccctccttg aggtccttcc 60  
tccccaagcc cacctgggtg ccctctttct ccctgaggct ccacttggtc tctccgcgc 119  
atg cct gcc ctg tgg ccc acc ctg gcc gct ctg gct ctg ctg agc agc 167  
Met Pro Ala Leu Trp Pro Thr Leu Ala Ala Leu Leu Ser Ser  
-20 -15 -10 -5

gtc gca gag gcc tcc ctg ggc tcc gcg ccc cgc agc cct gcc ccc cgc 215  
Val Ala Glu Ala Ser Leu Gly Ser Ala Pro Arg Ser Pro Ala Pro Arg  
1 5 10

gaa ggc ccc ccg cct gtc ctg gcg tcc ccc gcc ggc cac ctg ccg ggg 263

Glu	Gly	Pro	Pro	Pro	Val	Leu	Ala	Ser	Pro	Ala	Gly	His	Leu	Pro	Gly	
15					20							25				
gga cgc acg gcc cgc tgg tgc agt gga aga gcc cgg cgg ccg cgc cgc															311	
Gly	Arg	Thr	Ala	Arg	Trp	Cys	Ser	Gly	Arg	Ala	Arg	Arg	Pro	Arg	Arg	
30					35							40				
aga cac ttc tcg gcc cgc gcc ccc gcc tgc acc ccc atc tgc tct															359	
Arg	His	Phe	Ser	Ala	Arg	Ala	Pro	Ala	Ala	Cys	Thr	Pro	Ile	Cys	Ser	
45					50							55			60	
tcc ccc cgg gtc cgc gcg cgg ctg ggg ggc cgg gca gcg cgc tcg															407	
Ser	Pro	Arg	Val	Arg	Ala	Ala	Arg	Leu	Gly	Gly	Arg	Ala	Ala	Arg	Ser	
65					70							75				
ggc agc ggg ggc gcg ggg tgc cgc ctg cgc tcg cag ctg gtg ccg gtg															455	
Gly	Ser	Gly	Gly	Ala	Gly	Cys	Arg	Leu	Arg	Ser	Gln	Leu	Val	Pro	Val	
80					85							90				
cgc gcg ctc ggc ctg ggc cac cgc tcc gac gag ctg gtg cgt ttc cgc															503	
Arg	Ala	Leu	Gly	Leu	Gly	His	Arg	Ser	Asp	Glu	Leu	Val	Arg	Phe	Arg	
95					100							105				
ttc tgc acc ggc tcc tgc ccc ggc cgc tcc cca cac gac ctc agc															551	
Phe	Cys	Thr	Gly	Ser	Cys	Pro	Arg	Ala	Arg	Ser	Pro	His	Asp	Leu	Ser	
110					115							120				
ctg gcc agc cta ctg ggc gcc ggg gcc ctg cga ccg ccc ccg ggc tcc															599	
Leu	Ala	Ser	Leu	Leu	Gly	Ala	Gly	Ala	Leu	Arg	Pro	Pro	Pro	Gly	Ser	
125					130							135			140	
cgg ccc gtc agc cag ccc tgc tgc cga ccc acg cgc tac gaa gcg gtc															647	
Arg	Pro	Val	Ser	Gln	Pro	Cys	Cys	Arg	Pro	Thr	Arg	Tyr	Glu	Ala	Val	
145					150							155				
tcc ttc atg gac gtc aac agc acc tgg aga acc gtg gac cgc ctc tcc															695	
Ser	Phe	Met	Asp	Val	Asn	Ser	Thr	Trp	Arg	Thr	Val	Asp	Arg	Leu	Ser	
160					165							170				
gcc acc gcc tgc ggc tgc ctg ggc tgagggctcg ctccagggct ttgcagactg															749	
Ala	Thr	Ala	Cys	Gly	Cys	Leu	Gly									
175					180											
gacccttacc ggtggctctt cctgcctggg accctcccgc agagtcccac tagccagcgg															809	
cctcagccag	ggacgaaggc	ctcaaagctg	agagggccct	gccgggtgggt	gatgga											865
<210> 2																
<211> 200																
<212> PRT																
<213> Homo sapiens																
<220>																
<221> SIGNAL																
<222> (1)...(20)																
<400> 2																
Met Pro Ala Leu Trp Pro Thr Leu Ala Ala Leu Leu Ser Ser																

-20	-15	-10	-5
Val Ala Glu Ala Ser Leu Gly Ser Ala Pro Arg Ser Pro Ala Pro Arg			
1	5	10	
Glu Gly Pro Pro Pro Val Leu Ala Ser Pro Ala Gly His Leu Pro Gly			
15	20	25	
Gly Arg Thr Ala Arg Trp Cys Ser Gly Arg Ala Arg Arg Pro Arg Arg			
30	35	40	
Arg His Phe Ser Ala Arg Ala Pro Ala Ala Cys Thr Pro Ile Cys Ser			
45	50	55	60
Ser Pro Arg Val Arg Ala Ala Arg Leu Gly Gly Arg Ala Ala Arg Ser			
65	70	75	
Gly Ser Gly Gly Ala Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val			
80	85	90	
Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg			
95	100	105	
Phe Cys Thr Gly Ser Cys Pro Arg Ala Arg Ser Pro His Asp Leu Ser			
110	115	120	
Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser			
125	130	135	140
Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val			
145	150	155	
Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser			
160	165	170	
Ala Thr Ala Cys Gly Cys Leu Gly			
175	180		

<210> 3  
 <211> 861  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (7) ... (717)

<221> 5'UTR  
 <222> (1) ... (6)

<221> 3'UTR  
 <222> (718) ... (861)

<221> sig\_peptide  
 <222> (7) ... (174)

<221> mat\_peptide  
 <222> (298) ... (717)

<221> mat\_peptide  
 <222> (370) ... (717)

<221> mat\_peptide  
 <222> (379) ... (717)

<400> 3

gagcccc atg ccc ggc ctg atc tca gcc cga gga cag ccc ctc ctt gag  
 Met Pro Gly Leu Ile Ser Ala Arg Gly Gln Pro Leu Leu Glu  
 -55 -50 -45

gtc ctt cct ccc caa gcc cac ctg ggt gcc ctc ttt ctc cct gag gct			96
Val Leu Pro Pro Gln Ala His Leu Gly Ala Leu Phe Leu Pro Glu Ala			
-40	-35	-30	
cca ctt ggt ctc tcc gcg cag cct gcc ctg tgg ccc acc ctg gcc gct			144
Pro Leu Gly Leu Ser Ala Gln Pro Ala Leu Trp Pro Thr Leu Ala Ala			
-25	-20	-15	
ctg gct ctg ctg agc agc gtc gca gag gcc tcc ctg ggc tcc gcg ccc			192
Leu Ala Leu Leu Ser Ser Val Ala Glu Ala Ser Leu Gly Ser Ala Pro			
-10	-5	1	5
cgc agc cct gcc ccc cgc gaa ggc ccc ccg cct gtc ctg gcg tcc ccc			240
Arg Ser Pro Ala Pro Arg Glu Gly Pro Pro Pro Val Leu Ala Ser Pro			
10	15	20	
gcc ggc cac ctg ccg ggg gga cgc acg gcc cgc tgg tgc agt gga aga			288
Ala Gly His Leu Pro Gly Gly Arg Thr Ala Arg Trp Cys Ser Gly Arg			
25	30	35	
gcc cgg cgg ccg ccg cag cct tct cgg ccc gcg ccc ccg ccg cct			336
Ala Arg Arg Pro Pro Pro Gln Pro Ser Arg Pro Ala Pro Pro Pro Pro			
40	45	50	
gca ccc cca tct gct ctt ccc cgc ggg ggc cgc gcg gct ggg			384
Ala Pro Pro Ser Ala Leu Pro Arg Gly Gly Arg Ala Ala Arg Ala Gly			
55	60	65	70
ggc ccg ggc aac cgc gct cgg gca gcg ggg ggc cgg ggc tgc cgc ctg			432
Gly Pro Gly Asn Arg Ala Arg Ala Gly Ala Arg Gly Cys Arg Leu			
75	80	85	
cgc tcg cag ctg gtg ccg gtg cgc gcg ctc ggc ctg ggc cac cgc tcc			480
Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser			
90	95	100	
gac gag ctg gtg cgt ttc cgc ttc tgc agc ggc tcc tgc cgc cgc gcg			528
Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala			
105	110	115	
cgc tct cca cac gac ctc agc ctg gcc agc cta ctg ggc gcc ggg gcc			576
Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala			
120	125	130	
ctg cga ccg ccc ccg ggc tcc ccg ccc gtc agc cag ccc tgc tgc cga			624
Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg			
135	140	145	150
ccc acg cgc tac gaa gcg gtc tcc ttc atg gac gtc aac agc acc tgg			672
Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp			
155	160	165	
aga acc gtg gac cgc ctc tcc gcc aac ccc tgc ggc tgc ctg ggc			717
Arg Thr Val Asp Arg Leu Ser Ala Asn Pro Cys Gly Cys Leu Gly			
170	175	180	

tgaggggctcg ctccagggct ttgcagactg gacccttacc ggtggctctt cctgcctggg	777
accctccgc agagtcccac tagccagcgg cctcagccag ggacgaaggc ctcaaagctg	837
agaggccct gccggtggt gatg	861

<210> 4  
<211> 237  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SIGNAL  
<222> (1) ... (56)

<400> 4				
Met Pro Gly Leu Ile Ser Ala Arg Gly Gln Pro Leu Leu Glu Val Leu				
-55	-50	-45		
Pro Pro Gln Ala His Leu Gly Ala Leu Phe Leu Pro Glu Ala Pro Leu				
-40	-35	-30	-25	
Gly Leu Ser Ala Gln Pro Ala Leu Trp Pro Thr Leu Ala Ala Leu Ala				
-20	-15	-10		
Leu Leu Ser Ser Val Ala Glu Ala Ser Leu Gly Ser Ala Pro Arg Ser				
-5	1	5		
Pro Ala Pro Arg Glu Gly Pro Pro Pro Val Leu Ala Ser Pro Ala Gly				
10	15	20		
His Leu Pro Gly Gly Arg Thr Ala Arg Trp Cys Ser Gly Arg Ala Arg				
25	30	35	40	
Arg Pro Pro Pro Gln Pro Ser Arg Pro Ala Pro Pro Pro Pro Ala Pro				
45	50	55		
Pro Ser Ala Leu Pro Arg Gly Gly Arg Ala Ala Arg Ala Gly Gly Pro				
60	65	70		
Gly Asn Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser				
75	80	85		
Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu				
90	95	100		
Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser				
105	110	115	120	
Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg				
125	130	135		
Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr				
140	145	150		
Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr				
155	160	165		
Val Asp Arg Leu Ser Ala Asn Pro Cys Gly Cys Leu Gly				
170	175	180		

<210> 5  
<211> 140  
<212> PRT  
<213> Homo sapiens

<220>  
<221> VARIANT  
<222> 134  
<223> Xaa = Asn or Thr

<221> VARIANT  
<222> 135

<223> Xaa = Ala or Pro

<400> 5

Pro	Pro	Pro	Gln	Pro	Ser	Arg	Pro	Ala	Pro	Pro	Pro	Pro	Ala	Pro	Pro
1				5					10					15	
Ser	Ala	Leu	Pro	Arg	Gly	Gly	Arg	Ala	Ala	Arg	Ala	Gly	Gly	Pro	Gly
					20				25				30		
Asn	Arg	Ala	Arg	Ala	Ala	Gly	Ala	Arg	Gly	Cys	Arg	Leu	Arg	Ser	Gln
					35				40			45			
Leu	Val	Pro	Val	Arg	Ala	Leu	Gly	Leu	Gly	His	Arg	Ser	Asp	Glu	Leu
					50				55			60			
Val	Arg	Phe	Arg	Phe	Cys	Ser	Gly	Ser	Cys	Arg	Arg	Ala	Arg	Ser	Pro
					65				70			75			80
His	Asp	Leu	Ser	Leu	Ala	Ser	Leu	Leu	Gly	Ala	Gly	Ala	Leu	Arg	Pro
					85				90			95			
Pro	Pro	Gly	Ser	Arg	Pro	Val	Ser	Gln	Pro	Cys	Cys	Arg	Pro	Thr	Arg
					100				105			110			
Tyr	Glu	Ala	Val	Ser	Phe	Met	Asp	Val	Asn	Ser	Thr	Trp	Arg	Thr	Val
					115				120			125			
Asp	Arg	Leu	Ser	Ala	Xaa	Xaa	Cys	Gly	Cys	Gly	Leu	Gly			
					130				135			140			

<210> 6

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> 110

<223> Xaa = Asn or Thr

<221> VARIANT

<222> 111

<223> Xaa = Ala or Pro

<400> 6

Ala	Ala	Arg	Ala	Gly	Gly	Pro	Gly	Asn	Arg	Ala	Arg	Ala	Gly	Ala	
1				5				10					15		
Arg	Gly	Cys	Arg	Leu	Arg	Ser	Gln	Leu	Val	Pro	Val	Arg	Ala	Leu	Gly
				20				25				30			
Leu	Gly	His	Arg	Ser	Asp	Glu	Leu	Val	Arg	Phe	Arg	Phe	Cys	Ser	Gly
				35				40			45				
Ser	Cys	Arg	Arg	Ala	Arg	Ser	Pro	His	Asp	Leu	Ser	Leu	Ala	Ser	Leu
				50				55			60				
Leu	Gly	Ala	Gly	Ala	Leu	Arg	Pro	Pro	Pro	Gly	Ser	Arg	Pro	Val	Ser
				65				70			75			80	
Gln	Pro	Cys	Cys	Arg	Pro	Thr	Arg	Tyr	Glu	Ala	Val	Ser	Phe	Met	Asp
				85				90			95				
Val	Asn	Ser	Thr	Trp	Arg	Thr	Val	Asp	Arg	Leu	Ser	Ala	Xaa	Xaa	Cys
				100				105			110				
Gly	Cys	Leu	Gly												
				115											

<210> 7

<211> 113

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> 107

<223> Xaa = Asn or Thr

<221> VARIANT

<222> 108

<223> Xaa = Ala or Pro

<400> 7

Ala	Gly	Gly	Pro	Gly	Asn	Arg	Ala	Arg	Ala	Ala	Gly	Ala	Arg	Gly	Cys
1					5			10					15		
Arg	Leu	Arg	Ser	Gln	Leu	Val	Pro	Val	Arg	Ala	Leu	Gly	Leu	Gly	His
							20	25					30		
Arg	Ser	Asp	Glu	Leu	Val	Arg	Phe	Arg	Phe	Cys	Ser	Gly	Ser	Cys	Arg
							35	40			45				
Arg	Ala	Arg	Ser	Pro	His	Asp	Leu	Ser	Leu	Ala	Ser	Leu	Leu	Gly	Ala
							50	55			60				
Gly	Ala	Leu	Arg	Pro	Pro	Gly	Ser	Arg	Pro	Val	Ser	Gln	Pro	Cys	
65						70			75				80		
Cys	Arg	Pro	Thr	Arg	Tyr	Glu	Ala	Val	Ser	Phe	Met	Asp	Val	Asn	Ser
							85		90			95			
Thr	Trp	Arg	Thr	Val	Asp	Arg	Leu	Ser	Ala	Xaa	Xaa	Cys	Gly	Cys	Leu
							100		105			110			
Gly															

<210> 8

<211> 861

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (58) ... (717)

<221> 5'UTR

<222> (1) ... (57)

<221> 3'UTR

<222> (718) ... (861)

<221> sig\_peptide

<222> (58) ... (174)

<221> mat\_peptide

<222> (298) ... (717)

<221> mat\_peptide

<222> (370) ... (717)

<221> mat\_peptide

<222> (379) ... (717)

<400> 8

aggagggtgg gggAACAGCT caacaatggc tGATGGGCGC TCCtGGTgtt gatAGAG atG	60
Met	
gaa ctt gga ctt gga ggc ctc tcc acg ctg tcc cac tgc ccc tgg cct	108
Glu Leu Gly Leu Gly Gly Leu Ser Thr Leu Ser His Cys Pro Trp Pro	
-35 -30 -25	
agg cgg cag cct gcc ctg tgg ccc acc ctg gcc gct ctg gct ctg ctg	156
Arg Arg Gln Pro Ala Leu Trp Pro Thr Leu Ala Ala Leu Ala Leu Leu	
-20 -15 -10	
agc agc gtc gca gag gcc tcc ctg ggc tcc gcg ccc cgc agc cct gcc	204
Ser Ser Val Ala Glu Ala Ser Leu Gly Ser Ala Pro Arg Ser Pro Ala	
-5 ' 1 5 10	
ccc cgc gaa ggc ccc ccg cct gtc ctg gcg tcc ccc gcc ggc cac ctg	252
Pro Arg Glu Gly Pro Pro Val Leu Ala Ser Pro Ala Gly His Leu	
15 20 25	
ccg ggg gga cgc acg gcc cgc tgg tgc agt gga aga gca cgg cgg cgg	300
Pro Gly Gly Arg Thr Ala Arg Trp Cys Ser Gly Arg Ala Arg Arg Pro	
30 35 40	
ccg ccg cag cct tct cgg ccc gcg ccc ccg ccg cct gca ccc cca tct	348
Pro Pro Gln Pro Ser Arg Pro Ala Pro Pro Pro Ala Pro Pro Ser	
45 50 55	
gct ctt ccc cgc ggg ggc cgc gcg cgg gct ggg ggc cca ccc agc	396
Ala Leu Pro Arg Gly Gly Arg Ala Ala Arg Ala Gly Gly Pro Gly Ser	
60 65 70	
cgc gct cgg gca gcg ggg ggc cgg ggc tgc cgc ctg cgc tcg cag ctg	444
Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu	
75 80 85 90	
gtg ccg gtg cgc gcg ctc ggc ctg ggc cac cgc tcc gac gag ctg gtg	492
Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val	
95 100 105	
cgt ttc cgc ttc tgc agc ggc tcc tgc cgc cgc gcg ctc tct cca cac	540
Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His	
110 115 120	
gac ctc agc ctg gcc agc cta ctg ggc gcc ggg ggc ctg cga ccc ccc	588
Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro	
125 130 135	
ccg ggc tcc cgg ccc gtc agc cag ccc tgc tgc cga ccc acg cgc tac	636
Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr	
140 145 150	
gaa gcg gtc tcc ttc atg gac gtc aac agc acc tgg aga acc gtg gac	684
Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp	
155 160 165 170	
cgc ctc tcc gcc acc gcc tgc ggc tgc ctg ggc tgagggtcg ctccagggt	737

Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly  
 175 .180

ttgcagactg gacccttacc ggtggcttt cctgcctggg accctccgc agagtcccac	797
tagccagcgg cctcagccag ggacgaaggc ctcaaagctg agaggcccct accgggtgggt	857
gatg	861

<210> 9  
 <211> 220  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SIGNAL  
 <222> (1)...(39)

<221> MOD\_RES  
 <222> 163  
 <223> glycosylated asparagine residue

<400> 9  
 Met Glu Leu Gly Leu Gly Gly Leu Ser Thr Leu Ser His Cys Pro Trp  
 -35 -30 -25  
 Pro Arg Arg Gln Pro Ala Leu Trp Pro Thr Leu Ala Ala Leu Ala Leu  
 -20 -15 -10  
 Leu Ser Ser Val Ala Glu Ala Ser Leu Gly Ser Ala Pro Arg Ser Pro  
 -5 1 5  
 Ala Pro Arg Glu Gly Pro Pro Val Leu Ala Ser Pro Ala Gly His  
 10 15 20 25  
 Leu Pro Gly Gly Arg Thr Ala Arg Trp Cys Ser Gly Arg Ala Arg Arg  
 30 35 40  
 Pro Pro Pro Gln Pro Ser Arg Pro Ala Pro Pro Pro Ala Pro Pro  
 45 50 55  
 Ser Ala Leu Pro Arg Gly Gly Arg Ala Ala Arg Ala Gly Gly Pro Gly  
 60 65 70  
 Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln  
 75 80 85  
 Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu  
 90 95 100 105  
 Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro  
 110 115 120  
 His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro  
 125 130 135  
 Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg  
 140 145 150  
 Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val  
 155 160 165  
 Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly  
 170 175 180

<210> 10  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES

&lt;222&gt; 122

&lt;223&gt; glycosylated asparagine residue

&lt;400&gt; 10

Pro	Pro	Pro	Gln	Pro	Ser	Arg	Pro	Ala	Pro	Pro	Pro	Ala	Pro	Pro
1				5				10				15		
Ser	Ala	Leu	Pro	Arg	Gly	Gly	Arg	Ala	Ala	Arg	Ala	Gly	Gly	Pro
					20			25				30		
Ser	Arg	Ala	Arg	Ala	Ala	Gly	Ala	Arg	Gly	Cys	Arg	Leu	Arg	Ser
						35		40			45			Gln
Leu	Val	Pro	Val	Arg	Ala	Leu	Gly	Leu	Gly	His	Arg	Ser	Asp	Glu
						50		55			60			Leu
Val	Arg	Phe	Arg	Phe	Cys	Ser	Gly	Ser	Cys	Arg	Arg	Ala	Arg	Ser
					65		70		75			80		Pro
His	Asp	Leu	Ser	Leu	Ala	Ser	Leu	Leu	Gly	Ala	Gly	Ala	Leu	Arg
						85		90			95			Pro
Pro	Pro	Gly	Ser	Arg	Pro	Val	Ser	Gln	Pro	Cys	Cys	Arg	Pro	Thr
					100		105			110				Arg
Tyr	Glu	Ala	Val	Ser	Phe	Met	Asp	Val	Asn	Ser	Thr	Trp	Arg	Thr
					115		120			125				Val
Asp	Arg	Leu	Ser	Ala	Thr	Ala	Cys	Gly	Cys	Leu	Gly			
					130		135			140				

&lt;210&gt; 11

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; 98

&lt;223&gt; glycosylated asparagine residue

&lt;400&gt; 11

Ala	Ala	Arg	Ala	Gly	Gly	Pro	Gly	Ser	Arg	Ala	Arg	Ala	Gly	Ala
1				5				10				15		
Arg	Gly	Cys	Arg	Leu	Arg	Ser	Gln	Leu	Val	Pro	Val	Arg	Ala	Leu
					20			25			30			Gly
Leu	Gly	His	Arg	Ser	Asp	Glu	Leu	Val	Arg	Phe	Arg	Phe	Cys	Ser
						35		40			45			Gly
Ser	Cys	Arg	Arg	Ala	Arg	Ser	Pro	His	Asp	Leu	Ser	Leu	Ala	Ser
						50		55			60			Leu
Leu	Gly	Ala	Gly	Ala	Leu	Arg	Pro	Pro	Gly	Ser	Arg	Pro	Val	Ser
						65		70		75		80		
Gln	Pro	Cys	Cys	Arg	Pro	Thr	Arg	Tyr	Glu	Ala	Val	Ser	Phe	Met
						85		90			95			Asp
Val	Asn	Ser	Thr	Trp	Arg	Thr	Val	Asp	Arg	Leu	Ser	Ala	Thr	Ala
						100		105			110			Cys
Gly	Cys	Leu	Gly											
				115										

&lt;210&gt; 12

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

<221> MOD\_RES  
 <222> 95  
 <223> glycosylated asparagine residue

<400> 12  
 Ala Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys  
 1 5 10 15  
 Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His  
 20 25 30  
 Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg  
 35 40 45  
 Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala  
 50 55 60  
 Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys  
 65 70 75 80  
 Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser  
 85 90 95  
 Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu  
 100 105 110  
 Gly

<210> 13  
 <211> 102  
 <212> DNA  
 <213> Homo sapiens

<400> 13  
 cctggccagc ctactggcg ccggggccct gcgaccgccc ccgggctccc ggcccgtag 60  
 ccagccctgc tgccgaccca cgcgctacga agcggtctcc tt 102

<210> 14  
 <211> 220  
 <212> DNA  
 <213> Mus musculus

<400> 14  
 ggccaccgct ccgacgagct gatacgtttc cgcttctgca gcggctcggt ccggccgagca 60  
 cgctcccgac acgatcttag tctggccagc ctactggcg ctggggccct acggtcgcct 120  
 cccgggtccc ggccgatcag ccagccctgc tgccggccca ctcgctatga ggccgtctcc 180  
 ttcatggacg tgaacagcac ctggagaacc gtggaccgccc 220

<210> 15  
 <211> 2136  
 <212> DNA  
 <213> Mus musculus

<220>  
 <221> CDS  
 <222> (975) ... (1646)

<400> 15  
 gcggccgcga attcggcacg agggcgtctc gctgcagccc gcgatctcta ctctgcctcc 60  
 tgggtcttc tccaaatgtc tagccccac ctagagggac ctagccttagc cagggggac 120  
 cggatccgga gggtgagcg gccaggtgag ccctgaaagg tggggcgggg cggggcgct 180  
 ctggggccca ccccgggatc tggtgacgcc ggggctggaa tttgacaccc gacggcggcg 240  
 ggcaggaggc tgctgaggga tggagttggg ctcggccccc agatgcggcc cgcggctct 300

gccagcaaca agtccotcg	gccccagccc tcgctgcac	tggggcttgg agccctgcac	360
ccaaggcac agaccggctg	ccaaggccc acttttaact	aaaagaggcg ctgcaggtg	420
cacaactctg ggcatgatcc	acttgagctt cggggaaag	cccagcactg gtccaggag	480
aggcgcctag aaggacacgg	accaggaccc ctttggatg	gagtgaacgc tgagcatgga	540
gtggaaggaa ctcaagttac	tactttctcc aaccaccctg	gtaccttcag ccctgaagta	600
cagagcagaa gggtcttaga	agacaggacc acagctgtgt	gagtctcccc cctgaggcct	660
tagacgatct ctgagctcag	ctgagctttg tttgccatc	tggagaagtg agccattgat	720
tgacctgtg gcatcgcaa	gaaacaggtc ctgccaagca	cctaacacag agagaaggt	780
tctccatcgc agtaccgct	gtcgagttga ctctagctac	tccaaacccc tgggtcgctt	840
cgagagactg gagtggaaagg	aggaataccca caaaggataa	ctaaactcatc tttcagttt	900
caagctccg caggaagagg	gtggggaaac gggtccacga	aggcttctga tggagcttc	960
tggagccgaa agct atg	gaa ctg gga ctt gca	gag cct act gca ttg tcc	1010
Met Glu Leu Gly Leu	Ala Glu Pro Thr	Ala Leu Ser	
1	5	10	
cac tgc ctc cgg cct	agg tgg cag tca	gcc tgg cca acc cta gct	1058
His Cys Leu Arg Pro	Arg Trp Gln Ser	Ala Trp Trp Pro Thr Leu Ala	
15	20	25	
gtt cta gcc ctg ctg	agc tgc aca gaa	gct tcc ctg gac cca atg	1106
Val Leu Ala Leu	Leu Ser Cys Val	Thr Glu Ala Ser Leu Asp Pro Met	
30	35	40	
tcc cgc agc ccc gcc	gct cgc gac ggt	ccc tca ccg gtc ttg gcg ccc	1154
Ser Arg Ser Pro Ala	Ala Arg Asp Gly	Pro Ser Pro Val Leu Ala Pro	
45	50	55	60
ccc acg gac cac ctg	cct ggg gga	cac act gcg cat ttg tgc agc gaa	1202
Pro Thr Asp His Leu	Pro Gly Gly His Thr	Ala His Leu Cys Ser Glu	
65	70	75	
aga acc ctg cga ccc	ccg cct cag tct	cct cag ccc gca ccc ccg ccg	1250
Arg Thr Leu Arg Pro	Pro Pro Gln Ser	Pro Gln Pro Ala Pro Pro Pro	
80	85	90	
cct ggt ccc gcg ctc	cag tct cct	ccc gct gcg ctc cgc ggg gca cgc	1298
Pro Gly Pro Ala Leu	Gln Ser Pro Pro Ala	Ala Leu Arg Gly Ala Arg	
95	100	105	
gcg gcg cgt gca	gga acc cgg	agc agc cgc gca ccg acc aca gat gcg	1346
Ala Ala Arg Ala	Gly Thr Arg Ser	Ser Arg Ala Arg Thr Thr Asp Ala	
110	115	120	
cgc ggc tgc cgc	ctg cgc tcg	cag ctg gtg ccg gtg agc gcg ctc ggc	1394
Arg Gly Cys Arg	Leu Arg Ser Gln	Leu Val Pro Val Ser Ala Leu Gly	
125	130	135	140
cta ggc cac agc	tcc gac gag	ctg ata cgt ttc cgc ttc tgc agc ggc	1442
Leu Gly His Ser	Ser Asp Glu	Ile Arg Phe Arg Phe Cys Ser Gly	
145	150	155	
tcg tgc cgc cga	gca cgc tcc	cag cac gat ctc agt ctg gcc agc cta	1490
Ser Cys Arg Arg	Ala Arg Ser Gln	His Asp Leu Ser Leu Ala Ser Leu	
160	165	170	
ctg ggc gct	ggg gcc cta	cggtcg ccc ggg tcc	1538
Leu Gly Ala	Gly Ala Leu	Arg Ser Pro Pro Gly Ser Arg Pro Ile Ser	

175	180	185	
cag ccc tgc tgc cgg ccc act cgc tat gag gcc gtc tcc ttc atg gac Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp 190	195	200	1586
gtg aac agc acc tgg agg acc gtg gac cac ctc tcc gcc act gcc tgc Val Asn Ser Thr Trp Arg Thr Val Asp His Leu Ser Ala Thr Ala Cys 205	210	215	1634
ggc tgt ctg ggc tgaggatgtatctccaa gccttgac actagaccca Gly Cys Leu Gly			1686
 tgtgttgcac tacctgaaac agctccaccc ggcctcacta accaggagcc tcaactcagc aggatatgga ggctgcagag ctcaggcccc aggccggta gtgacagacg tcgtcggcat gacagacaga gtgaaagatg tcggaaccac tgaccaacag tcccaagttt ttcatggatc ccagctctac agacaggaga aacctcagct aaagagaact cctctggag aatccagaaa tggccctctg tcctgggaa tgaattttga agagatataat atacatataat acattgtatg cgcggtgtg gaccaggctg tgctgaaacc agtcccgtgt tcacttgg aagccgaagc cctattttt atttctaaat tatttatttta ctttggaaaaaa aaacggccaa gtcggcctcc ctttagtgag ggttaatttg tgatcccg			1746 1806 1866 1926 1986 2046 2106 2136
<210> 16			
<211> 224			
<212> PRT			
<213> Mus musculus			
 <400> 16			
Met Glu Leu Gly Leu Ala Glu Pro Thr Ala Leu Ser His Cys Leu Arg 1 5 10 15			
Pro Arg Trp Gln Ser Ala Trp Trp Pro Thr Leu Ala Val Leu Ala Leu 20 25 30			
Leu Ser Cys Val Thr Glu Ala Ser Leu Asp Pro Met Ser Arg Ser Pro 35 40 45			
Ala Ala Arg Asp Gly Pro Ser Pro Val Leu Ala Pro Pro Pro Thr Asp His 50 55 60			
Leu Pro Gly Gly His Thr Ala His Leu Cys Ser Glu Arg Thr Leu Arg 65 70 75 80			
Pro Pro Pro Gln Ser Pro Gln Pro Ala Pro Pro Pro Pro Gly Pro Ala 85 90 95			
Leu Gln Ser Pro Pro Ala Ala Leu Arg Gly Ala Arg Ala Ala Arg Ala 100 105 110			
Gly Thr Arg Ser Ser Arg Ala Arg Thr Thr Asp Ala Arg Gly Cys Arg 115 120 125			
Leu Arg Ser Gln Leu Val Pro Val Ser Ala Leu Gly Leu Gly His Ser 130 135 140			
Ser Asp Glu Leu Ile Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg 145 150 155 160			
Ala Arg Ser Gln His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly 165 170 175			
Ala Leu Arg Ser Pro Pro Gly Ser Arg Pro Ile Ser Gln Pro Cys Cys 180 185 190			
Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr 195 200 205			
Trp Arg Thr Val Asp His Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly 210 215 220			

<210> 17  
<211> 18  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 17  
cctggccagc ctactggg 18  
  
<210> 18  
<211> 20  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 18  
aaggagaccg cttcgttagcg 20  
  
<210> 19  
<211> 17  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 19  
atggaacttg gacttgg 17  
  
<210> 20  
<211> 16  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 20  
tccatcaccc accggc 16  
  
<210> 21  
<211> 18  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 21  
ggccacccgct ccgacgag 18  
  
<210> 22

```

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 22
ggcggtccac ggttctccag 20

<210> 23
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 23
ccaagccac ctgggtgccc tctttctcc 29

<210> 24
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 24
catcacccac cggcaggggc ctctcag 27

<210> 25
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 25
gagcccatgc cgggcctgat ctcagccga ggaca 35

<210> 26
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 26
ccctggctga ggccgctggc tagtggact ctgc 34

<210> 27
<211> 31
<212> DNA

```

<213> Artificial Sequence

<220>  
<223> probe

<221> misc\_feature  
<222> 1  
<223> n = A, T, G, or C

<400> 27  
ncaggtggtc cgtggggggc gccaaagaccg g

31

<210> 28  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 28  
ctaggagccc atgccc

16

<210> 29  
<211> 351  
<212> DNA  
<213> Homo sapiens

<400> 29  
atggctggag gaccgggatc tcgtgctcgt gcagcaggag cacgtggctg tcgtctgcgt  
tctcaactag tgccggtgcg tgcactcgga ctgggacacc gttccgacga actagtacgt  
tttcgtttt gttcaggatc ttgtcgctcg gcacgttctc cgcacatctt atctctagca  
tctctactag gagccggagc actaagaccg ccgcgggat ctagacctgt atctcaacct  
tgtttagac ctactagata cgaagcagta tctttcatgg acgtaaactc tacatggaga  
accgttagata gactatctgc aaccgcatgt ggctgtctag gatgataata g

60  
120  
180  
240  
300  
351

<210> 30  
<211> 414  
<212> DNA  
<213> Homo sapiens

<400> 30  
atgggccatc atcatcatca tcatcatcat catcactcga gcggccatcgatcgac  
gacaaggctg gaggaccggg atctcgctcg cgtcgcacgc gggcacgtgg ctgtcgctcg  
cggttcac tagtgcgggt gctgcactc ggactggac accgttccga cgaactagta  
cggttcgtt tttgttcagg atcttgcgt cgtcgcacgtt ctccgcatga tctatctcta  
gcacatctac taggagccgg agcactaaga ccgcggccgg gatctagacc tggatctcaa  
ccttgggtgtaa gacctactag atacgaagca gtatcttca tggacgtaaa ctctacatgg  
agaaccgttag atagactatc tgcaaccgcgca tggatgtgtc taggatgata atag

60  
120  
180  
240  
300  
360  
414

<210> 31  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 31		
aaggaaaaaa gcggccgcca tggaacttgg acttggagg		39
<210> 32		
<211> 39		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 32		
ttttttcctt ggccggcgct cagcccaggc agccgcagg		39
<210> 33		
<211> 16		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 33		
gagcgagccc tcagcc		16
<210> 34		
<211> 224		
<212> PRT		
<213> Rattus norvegicus		
<400> 34		
Met Glu Leu Gly Leu Gly Glu Pro Thr Ala Leu Ser His Cys Leu Arg		
1 5 10 15		
Pro Arg Trp Gln Pro Ala Leu Trp Pro Thr Leu Ala Ala Leu Ala Leu		
20 25 30		
Leu Ser Ser Val Thr Glu Ala Ser Leu Asp Pro Met Ser Arg Ser Pro		
35 40 45		
Ala Ser Arg Asp Val Pro Ser Pro Val Leu Ala Pro Pro Thr Asp Tyr		
50 55 60		
Leu Pro Gly Gly His Thr Ala His Leu Cys Ser Glu Arg Ala Leu Arg		
65 70 75 80		
Pro Pro Pro Gln Ser Pro Gln Pro Ala Pro Pro Pro Gly Pro Ala		
85 90 95		
Leu Gln Ser Pro Pro Ala Ala Leu Arg Gly Ala Arg Ala Ala Arg Ala		
100 105 110		
Gly Thr Arg Ser Ser Arg Ala Arg Ala Thr Asp Ala Arg Gly Cys Arg		
115 120 125		
Leu Arg Ser Gln Leu Val Pro Val Ser Ala Leu Gly Leu Gly His Ser		
130 135 140		
Ser Asp Glu Leu Ile Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg		
145 150 155 160		
Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly		
165 170 175		
Ala Leu Arg Ser Pro Pro Gly Ser Arg Pro Ile Ser Gln Pro Cys Cys		
180 185 190		
Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr		

195	200	205
Trp Arg Thr Val Asp His Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly		
210	215	220

<210> 35  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<400> 35

Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg			
1	5	10	15
Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg			
20	25	30	
Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg			
35	40	45	
Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly			
50	55	60	
Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys			
65	70	75	80
Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr			
85	90	95	
Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly			
100	105	110	

<210> 36  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 36

Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu			
1	5	10	15
Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser			
20	25	30	
Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala			
35	40	45	
Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala			
50	55	60	
Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg			
65	70	75	80
Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp			
85	90	95	
Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly			
100	105	110	

<210> 37  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 37

Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg			
1	5	10	15
Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp			
20	25	30	
Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg			

35	40	45	
Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu			
50	55	60	
Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro			
65	70	75	80
Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg			
85	90	95	
Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly			
100	105	110	

<210> 38  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

38			
Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser			
1	5	10	15
Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu			
20	25	30	
Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser			
35	40	45	
Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg			
50	55	60	
Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr			
65	70	75	80
Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr			
85	90	95	
Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly			
100	105		

<210> 39  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

39			
Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln			
1	5	10	15
Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu			
20	25	30	
Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro			
35	40	45	
His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro			
50	55	60	
Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg			
65	70	75	80
Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val			
85	90	95	
Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly			
100	105		

<210> 40  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 40

Arg	Ala	Arg	Ala	Ala	Gly	Ala	Arg	Gly	Cys	Arg	Leu	Arg	Ser	Gln	Leu
1					5				10						15
Val	Pro	Val	Arg	Ala	Leu	Gly	Leu	Gly	His	Arg	Ser	Asp	Glu	Leu	Val
					20				25						30
Arg	Phe	Arg	Phe	Cys	Ser	Gly	Ser	Cys	Arg	Arg	Ala	Arg	Ser	Pro	His
					35				40						45
Asp	Leu	Ser	Leu	Ala	Ser	Leu	Leu	Gly	Ala	Gly	Ala	Leu	Arg	Pro	Pro
					50				55						60
Pro	Gly	Ser	Arg	Pro	Val	Ser	Gln	Pro	Cys	Cys	Arg	Pro	Thr	Arg	Tyr
					65				70						80
Glu	Ala	Val	Ser	Phe	Met	Asp	Val	Asn	Ser	Thr	Trp	Arg	Thr	Val	Asp
					85				90						95
Arg	Leu	Ser	Ala	Thr	Ala	Cys	Gly	Cys	Leu	Gly					
					100				105						

&lt;210&gt; 41

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 41

Ala	Arg	Ala	Ala	Gly	Ala	Arg	Gly	Cys	Arg	Leu	Arg	Ser	Gln	Leu	Val
1					5				10						15
Pro	Val	Arg	Ala	Leu	Gly	Leu	Gly	His	Arg	Ser	Asp	Glu	Leu	Val	Arg
					20				25						30
Phe	Arg	Phe	Cys	Ser	Gly	Ser	Cys	Arg	Arg	Ala	Arg	Ser	Pro	His	Asp
					35				40						45
Leu	Ser	Leu	Ala	Ser	Leu	Leu	Gly	Ala	Gly	Ala	Leu	Arg	Pro	Pro	Pro
					50				55						60
Gly	Ser	Arg	Pro	Val	Ser	Gln	Pro	Cys	Cys	Arg	Pro	Thr	Arg	Tyr	Glu
					65				70						80
Ala	Val	Ser	Phe	Met	Asp	Val	Asn	Ser	Thr	Trp	Arg	Thr	Val	Asp	Arg
					85				90						95
Leu	Ser	Ala	Thr	Ala	Cys	Gly	Cys	Leu	Gly						
					100				105						

&lt;210&gt; 42

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 42

Arg	Ala	Ala	Gly	Ala	Arg	Gly	Cys	Arg	Leu	Arg	Ser	Gln	Leu	Val	Pro
1					5				10						15
Val	Arg	Ala	Leu	Gly	Leu	Gly	His	Arg	Ser	Asp	Glu	Leu	Val	Arg	Phe
					20				25						30
Arg	Phe	Cys	Ser	Gly	Ser	Cys	Arg	Arg	Ala	Arg	Ser	Pro	His	Asp	Leu
					35				40						45
Ser	Leu	Ala	Ser	Leu	Leu	Gly	Ala	Gly	Ala	Leu	Arg	Pro	Pro	Pro	Gly
					50				55						60
Ser	Arg	Pro	Val	Ser	Gln	Pro	Cys	Cys	Arg	Pro	Thr	Arg	Tyr	Glu	Ala
					65				70						80
Val	Ser	Phe	Met	Asp	Val	Asn	Ser	Thr	Trp	Arg	Thr	Val	Asp	Arg	Leu
					85				90						95
Ser	Ala	Thr	Ala	Cys	Gly	Cys	Leu	Gly							
					100				105						

<210> 43  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 43  
 Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val  
 1 5 10 15  
 Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg  
 20 25 30  
 Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser  
 35 40 45  
 Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser  
 50 55 60  
 Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val  
 65 70 75 80  
 Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser  
 85 90 95  
 Ala Thr Ala Cys Gly Cys Leu Gly  
 100

<210> 44  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 44  
 Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg  
 1 5 10 15  
 Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe  
 20 25 30  
 Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu  
 35 40 45  
 Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg  
 50 55 60  
 Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser  
 65 70 75 80  
 Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala  
 85 90 95  
 Thr Ala Cys Gly Cys Leu Gly  
 100

<210> 45  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 45  
 Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala  
 1 5 10 15  
 Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys  
 20 25 30  
 Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala  
 35 40 45  
 Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro  
 50 55 60

Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe  
 65 70 75 80  
 Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr  
 85 90 95  
 Ala Cys Gly Cys Leu Gly  
 100

<210> 46  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 46  
 Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu  
 1 5 10 15  
 Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser  
 20 25 30  
 Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser  
 35 40 45  
 Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val  
 50 55 60  
 Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met  
 65 70 75 80  
 Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala  
 85 90 95  
 Cys Gly Cys Leu Gly  
 100

<210> 47  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 47  
 Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly  
 1 5 10 15  
 Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly  
 20 25 30  
 Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu  
 35 40 45  
 Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser  
 50 55 60  
 Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp  
 65 70 75 80  
 Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys  
 85 90 95  
 Gly Cys Leu Gly  
 100

<210> 48  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 48  
 Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu  
 1 5 10 15

Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser  
 20 25 30  
 Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu  
 35 40 45  
 Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln  
 50 55 60  
 Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val  
 65 70 75 80  
 Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly  
 85 90 95  
 Cys Leu Gly

<210> 49  
 <211> 197  
 <212> PRT  
 <213> Homo sapiens

<400> 49  
 Met Gln Arg Trp Lys Ala Ala Ala Leu Ala Ser Val Leu Cys Ser Ser  
 1 5 10 15  
 Val Leu Ser Ile Trp Met Cys Arg Glu Gly Leu Leu Leu Ser His Arg  
 20 25 30  
 Leu Gly Pro Ala Leu Val Pro Leu His Arg Leu Pro Arg Thr Leu Asp  
 35 40 45  
 Ala Arg Ile Ala Arg Leu Ala Gln Tyr Arg Ala Leu Gln Gly Ala  
 50 55 60  
 Pro Asp Ala Met Glu Leu Arg Glu Leu Thr Pro Trp Ala Gly Arg Pro  
 65 70 75 80  
 Pro Gly Pro Arg Arg Ala Gly Pro Arg Arg Arg Ala Arg Ala  
 85 90 95  
 Arg Leu Gly Ala Arg Pro Cys Gly Leu Arg Glu Leu Glu Val Arg Val  
 100 105 110  
 Ser Glu Leu Gly Leu Gly Tyr Ala Ser Asp Glu Thr Val Leu Phe Arg  
 115 120 125  
 Tyr Cys Ala Gly Ala Cys Glu Ala Ala Arg Val Tyr Asp Leu Gly  
 130 135 140  
 Leu Arg Arg Leu Arg Gln Arg Arg Arg Leu Arg Arg Glu Arg Val Arg  
 145 150 155 160  
 Ala Gln Pro Cys Cys Arg Pro Thr Ala Tyr Glu Asp Glu Val Ser Phe  
 165 170 175  
 Leu Asp Ala His Ser Arg Tyr His Thr Val His Glu Leu Ser Ala Arg  
 180 185 190  
 Glu Cys Ala Cys Val  
 195

<210> 50  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<400> 50  
 Met Ala Val Gly Lys Phe Leu Leu Gly Ser Leu Leu Leu Ser Leu  
 1 5 10 15  
 Gln Leu Gly Gln Gly Trp Gly Pro Asp Ala Arg Gly Val Pro Val Ala  
 20 25 30  
 Asp Gly Glu Phe Ser Ser Glu Gln Val Ala Lys Ala Gly Gly Thr Trp  
 35 40 45

Leu Gly Thr His Arg Pro Leu Ala Arg Leu Arg Arg Ala Leu Ser Gly  
 50 55 60  
 Pro Cys Gln Leu Trp Ser Leu Thr Leu Ser Val Ala Glu Leu Gly Leu  
 65 70 75 80  
 Gly Tyr Ala Ser Glu Glu Lys Val Ile Phe Arg Tyr Cys Ala Gly Ser  
 85 90 95  
 Cys Pro Arg Gly Ala Arg Thr Gln His Gly Leu Ala Leu Ala Arg Leu  
 100 105 110  
 Gln Gly Gln Gly Arg Ala His Gly Gly Pro Cys Cys Arg Pro Thr Arg  
 115 120 125  
 Tyr Thr Asp Val Ala Phe Leu Asp Asp Arg His Arg Trp Gln Arg Leu  
 130 135 140  
 Pro Gln Leu Ser Ala Ala Ala Cys Gly Cys Gly Gly  
 145 150 155

<210> 51  
 <211> 211  
 <212> PRT  
 <213> Homo sapiens

<400> 51  
 Met Lys Leu Trp Asp Val Val Ala Val Cys Leu Val Leu Leu His Thr  
 1 5 10 15  
 Ala Ser Ala Phe Pro Leu Pro Ala Gly Lys Arg Pro Pro Glu Ala Pro  
 20 25 30  
 Ala Glu Asp Arg Ser Leu Gly Arg Arg Arg Ala Pro Phe Ala Leu Ser  
 35 40 45  
 Ser Asp Ser Asn Met Pro Glu Asp Tyr Pro Asp Gln Phe Asp Asp Val  
 50 55 60  
 Met Asp Phe Ile Gln Ala Thr Ile Lys Arg Leu Lys Arg Ser Pro Asp  
 65 70 75 80  
 Lys Gln Met Ala Val Leu Pro Arg Arg Glu Arg Asn Arg Gln Ala Ala  
 85 90 95  
 Ala Ala Asn Pro Glu Asn Ser Arg Gly Lys Gly Arg Arg Gly Gln Arg  
 100 105 110  
 Gly Lys Asn Arg Gly Cys Val Leu Thr Ala Ile His Leu Asn Val Thr  
 115 120 125  
 Asp Leu Gly Leu Gly Tyr Glu Thr Lys Glu Glu Leu Ile Phe Arg Tyr  
 130 135 140  
 Cys Ser Gly Ser Cys Asp Ala Ala Glu Thr Thr Tyr Asp Lys Ile Leu  
 145 150 155 160  
 Lys Asn Leu Ser Arg Asn Arg Arg Leu Val Ser Asp Lys Val Gly Gln  
 165 170 175  
 Ala Cys Cys Arg Pro Ile Ala Phe Asp Asp Asp Leu Ser Phe Leu Asp  
 180 185 190  
 Asp Asn Leu Val Tyr His Ile Leu Arg Lys His Ser Ala Lys Arg Cys  
 195 200 205  
 Gly Cys Ile  
 210

<210> 52  
 <211> 365  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS

<222> (5) . . . (346)

<400> 52	49
tacc atg gct gga gga ccg gga tct cgt gct cgt gca gca gca gca cgt	
Met Ala Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg	
1 5 10 15	
ggc tgc cgt ctg cgt tct caa cta gtc ccg gtc cgt gca ctc gga ctg	97
Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu	
20 25 30	
gga cac cgt tcc gac gaa cta gta cgt ttt cgt ttt tgc tca gga tct	145
Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser	
35 40 45	
tgc cgt cgt gca cgt tct ccg cat gat cta tct cta gca tct cta cta	193
Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu	
.50 55 60	
gga gcc gga gca cta aga ccg ccg ccg gga tct aga cct gta tct caa	241
Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln	
65 70 75	
cct tgc tgc aga cct act aga tac gaa gca gta tct ttc atg gac gta	289
Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val	
80 85 90 95	
aac tct aca tgg aga acc gta gat aga cta tct gca acc gca tgc ggc	337
Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly	
100 105 110	
tgc cta gga tgataatagg gatccggct	365
Cys Leu Gly	
<210> 53	
<211> 365	
<212> DNA	
<213> Homo sapiens	
<400> 53	
agccggatcc ctattatcat cctagacagc cacatgcggc tgcagatgt ctatctacgg	60
ttctccatgt agagtttacg tccatgaaag atactgcttc gtatctagta ggtctacaac	120
aagggttggaa tacaggtcta gatcccgccg gcggcgtttag tgctccggct cctagtagag	180
atgcttagaga tagatcatgc ggagaacgtg cacgacgaca agatcctgaa caaaaacgaa	240
aacgtactag ttctgtcgaa cgggtgtccca gtccgagtc acgcacccgc actagtttag	300
aacgcagacg acagccacgt gtcctgctg cacgagcacg agatcccggt cctccagcca	360
tggta	365
<210> 54	
<211> 114	
<212> PRT	
<213> Homo sapiens	
<400> 54	
Met Ala Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly	
1 5 10 15	
Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly	

20	25	30	
His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys			
35	40	45	
Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly			
50	55	60	
Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro			
65	70	75	80
Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn			
85	90	95	
Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys			
100	105	110	
Leu Gly			

<210> 55  
<211> 442  
<212> DNA  
<213> *Homo sapiens*

<220>  
<221> CDS  
<222> (5) ... (409)

```

<400> 55
tacc atg ggc cat cat cat cat cat cat cat cat cac tcg agc ggc 49
      Met Gly His His His His His His His His Ser Ser Gly
      1          5          10          15

```

cat atc gac gac gac gac aag gct gga gga ccg gga tct cgt gct cgt 97  
 His Ile Asp Asp Asp Asp Lys Ala Gly Gly Pro Gly Ser Arg Ala Arg  
                   20                  25                  30

gca gca gga gca cgt ggc tgt cgt ctg cgt tct caa cta gtg ccg gtg 145  
 Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val  
 35 40 45

cgt gca ctc gga ctg gga cac cgt tcc gac gaa cta gta cgt ttt cgt 193  
 Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg  
                  50                 55                 60

ttt tgt tca gga tct tgt cgt cgt gca cgt tct ccg cat gat cta tct 241  
 Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser  
     65            70            75

cta gca tct cta cta gga gcc gga gca cta aga ccg ccg ccg gga tct	289
Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser	
80 85 90 95	

```

aga cct gta tct caa cct tgt tgt aga cct act aga tac gaa gca gta      337
Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val
100          105          110

```

tct ttc atg gac gta aac tct aca tgg aga acc gta gat aga cta tct 385  
 Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser  
 115 120 125

gca acc gca tgt ggc tgt cta gga tgataatagg gatccggctg ctaacaaagc 439  
Ala Thr Ala Cys Gly Cys Leu Gly

130

135

442

ccg

<210> 56  
 <211> 442  
 <212> DNA  
 <213> Homo sapiens

<400> 56

cgggctttgt tagcagccgg atccctatta tcatcctaga cagccacatg	cggttgcaga	60
tagtctatct acggttctcc atgttagagtt tacgtccatg aaagatactg	cttcgtatct	120
agttaggtcta caacaagggtt gagatacagg tctagatccc ggcggcggtc	ttagtgctcc	180
ggctcctagt agagatgcta gagatagatc atgcggagaa cgtgcacgac	gacaagatcc	240
tgaacaaaaa cgaaaacgta ctatcgatc ggaacggtgt cccagtccga	gtgcacgcac	300
cggcactagt tgagaacgca gacgacagcc acgtgctcct gctgcacgag	cacgagatcc	360
cggtcctcca gccttgcgt cgtcgtcgat atggccgctc gagtgatgat	gatgatgatg	420
atgatgatga tggcccatgg ta		442

<210> 57  
 <211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 57

Met Gly His His His His His His His His Ser Ser Gly His			
1	5	10	15
Ile Asp Asp Asp Asp Lys Ala Gly Gly Pro Gly Ser Arg Ala Arg Ala			
20	25	30	
Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg			
35	40	45	
Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe			
50	55	60	
Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu			
65	70	75	80
Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg			
85	90	95	
Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser			
100	105	110	
Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala			
115	120	125	
Thr Ala Cys Gly Cys Leu Gly			
130	135		

<210> 58  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 58

gctggcccg	ctgcaggg	18
-----------	----------	----

<210> 59  
 <211> 20

<212> DNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 59		
taggccacgt cggtgttagcg	20	
<210> 60		
<211> 18		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 60		
gctgcgacga ctgcgcga	18	
<210> 61		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 61		
aaggacacct cgtcctcgta ggc	23	
<210> 62		
<211> 18		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 62		
attaaaaaac ttatccag	18	
<210> 63		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 63		
aacgacaggt catcatcaaa ggc	23	
<210> 64		
<211> 4		
<212> PRT		
<213> Artificial Sequence		

<220>  
<223> exemplary motif

<400> 64  
Asn Glu Gln Lys  
1

<210> 65  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 65  
Asn His Gln Lys  
1

<210> 66  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 66  
Asn Asp Glu Gln  
1

<210> 67  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 67  
Gln His Arg Lys  
1

<210> 68  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 68  
Met Ile Leu Val  
1

<210> 69

<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 69  
Met Ile Leu Phe  
1

<210> 70  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 70  
Ser Thr Asn Lys  
1

<210> 71  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 71  
Ser Thr Pro Ala  
1

<210> 72  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 72  
Ser Gly Asn Asp  
1

<210> 73  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> exemplary motif

<400> 73  
Ser Asn Asp Glu Gln Lys

1 5

<210> 74  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> exemplary motif

<400> 74  
 Asn Asp Glu Gln His Lys  
 1 5

<210> 75  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> exemplary motif

<400> 75  
 Asn Glu Gln His Arg Lys  
 1 5

<210> 76  
 <211> 86  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> consensus sequence

<221> VARIANT  
 <222> 5-12, 21-51, 53, 58-79, 82, 83  
 <223> Xaa = any amino acid

<221> VARIANT  
 <222> 15  
 <223> Xaa = Tyr or Phe

<400> 76  
 Leu Gly Leu Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe Arg Xaa Cys  
 1 5 10 15  
 Ser Gly Ser Cys Xaa  
 20 25 30  
 Xaa  
 35 40 45  
 Xaa Xaa Xaa Gln Xaa Cys Cys Arg Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 50 55 60  
 Xaa Ser  
 65 70 75 80  
 Ala Xaa Xaa Cys Gly Cys  
 85